

NOTES ON THE CURRENT STATUS OF WISCONSIN UNIONIDAE

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In recent years, there has been great concern about the status of American mussels, the Unionidae. Much of this concern arises from changes in river systems where Ortmann and other early workers reported abundant naiad populations. Recent surveys of these same streams have often shown marked reduction in species diversity (Stansbery, 1964, 1972; Starrett, 1971; Isom and Yokley, 1967, 1968; van der Schalie, 1973). One of the most thorough surveys of the naiad fauna within the Mississippi drainage is the work of Baker (1928) on Wisconsin Unionidae. Since 1928, only surveys by Dawley (1947) of the lower St. Croix and Mississippi Rivers have dealt with the Wisconsin fauna.

Since 1972, I have visited many Wisconsin streams and have found living naiad populations at 36 sites (Table I and Fig. 1). Taking current synonymy into account, Baker found 45 species in Wisconsin. Since 1970, all but 7 of these species have been recorded alive or freshly dead (Table II). Intensive systematic sampling of the Mississippi and lower Wisconsin Rivers might turn up most of the missing naiads, since current records include only specimens hand picked at a few easily accessible sites.

Although human influence on abundance, distribution and reproduction are still unknown, the number of species of Wisconsin Unionidae has not decreased significantly since Baker's time. The two recently surveyed rivers with the richest naiad fauna, the St. Croix and the lower Wisconsin, are as yet relatively uninfluenced by pollution or habitat destruction; they may remain so for some time. Four species (*Alasmidonta calceolus*, *Anodontoides ferussacianus*, *Actinonaias ellipsiformis*, *Villosa (Micromya) iris*) apparently live only in the southeastern part of the state where human activity is most intense. They are in greatest danger of extinction in Wisconsin and their status should be watched carefully.

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FIG. 1 (page 41) Localities with living naiad populations in Wisconsin.

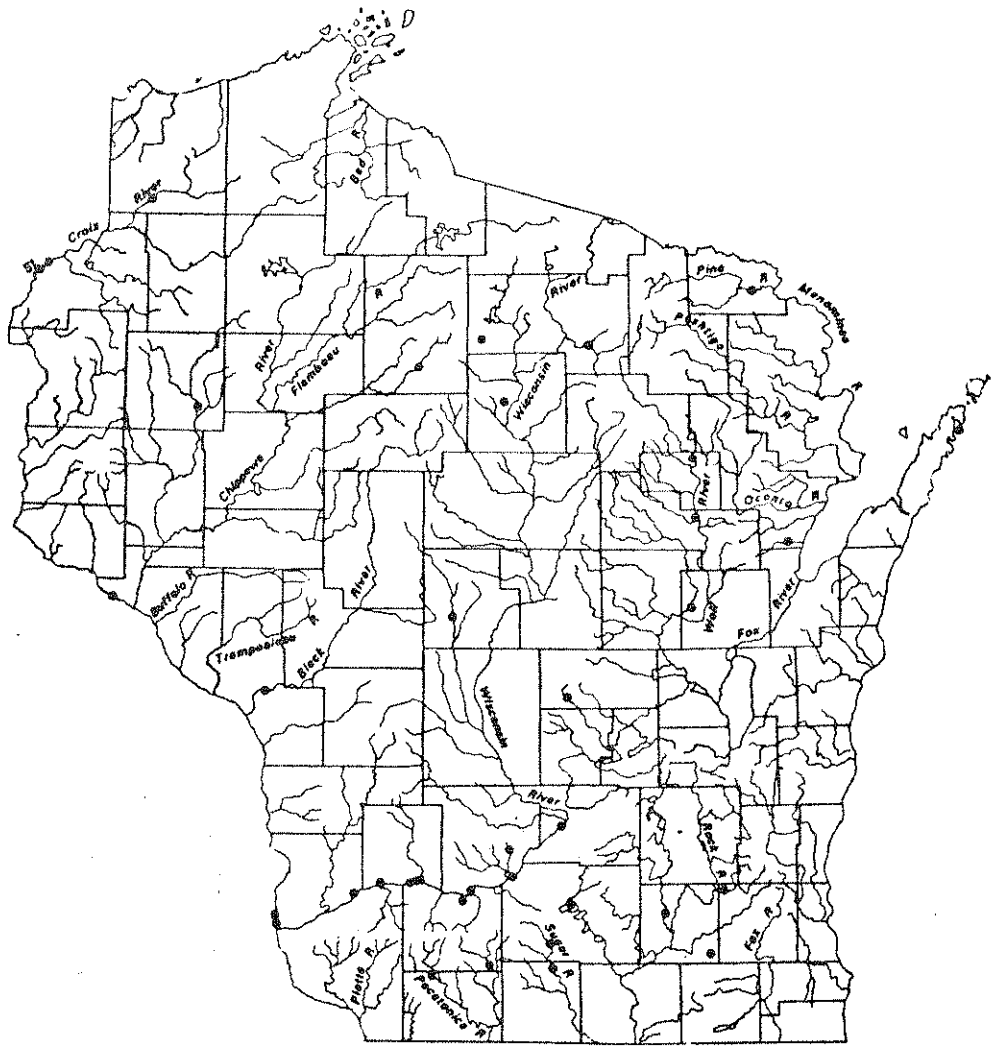


TABLE 1. Localities with living naiad population in Wisconsin

STREAM	COUNTY	TWP	RANGE	SECTION
Averill Creek	Lincoln	33 N	5 E	21, 28
Ashippun River	Waukesha	8 N	17 E	5
Black River	Trempealeau	18 N	8 W	1, 2
Crawfish River	Jefferson	7 N	14 E	20
Unnamed creek	Iowa	8 N	4 E	30
Embarras River	Outagamie	23 N	15 E	32
Flambeau River, South Fork				
Lake Mendota	Dane	7 N	28 E	1
Lake Michigan	Door	30 N	28 E	21
Little Jump R.	Price	35 N	1 E	14, 15
Little Somo R.	Oneida	36 N	4 E	25
Little Sumico River	Oconto	26 N	20 E	23
Mecan River	Waushara	18 N	9 E	16
Mississippi R.	Crawford	7 N	7 W	25
Mississippi R.	Pepin	23 N	6 E	28
Otter Creek	Sauk	11 N	6 E	28
Pecatonica R., E. Branch	Iowa	5 N	5 E	32
Pecatonica R., W. Branch	Lafayette	4 N	2 E	21
Pelican River, N. Branch	Oneida	36 N	10 E	19
Pine River	Florence	39 N	18 E	22
Red Cedar River	Barron	32 N	11 W	2, 3
St. Croix River	Burnett	40 N	18 W	30
St. Croix River	Burnett	40 N	19 W	35
St. Croix River	Douglas	43 N	14 W	23, 24
Scuppernong R.	Jefferson	5 N	16 E	14
Sugar River	Dane	5 N	8 E	3
Sugar River	Green	4 N	8 E	20
Wisconsin River	Crawford	8 N	3 W	14
Wisconsin River	Columbia	11 N	9 E	6
Wisconsin River	Dane	9 N	6 E	29
Wisconsin River	Iowa	8 N	4 E	30
Wisconsin River	Richland	9 N	1 E	34
Wisconsin River	Richland	9 N	1 E	35
Wisconsin River	Richland	9 N	1 E	32
Wisconsin River	Richland	9 N	2 W	36
Wolf River	Menominee	30 N	15 E	13
Wolf River	Shawano	28 N	27 E	13
Yellow River	Wood	23 N	3 E	21, 28

TABLE 2. Early and Recent species records for Wisconsin Unionidae

Species recorded	1928	1970-74
MARGARITIFERIDAE		
Cumberlandia monodonta	X	O
UNIONIDAE		
ANODONTINAE		
Alasmidonta calceolus	X	X [†]
Alasmidonta marginata	X	X
Anodonta grandis	X	X
A. imbecillis	X	X
Anodontoides ferussacianus	X	X
Arcidens confragosus	X	X
Lasmigona complanata	X	X
L. compressa	X	X
L. costata	X	X
Simpsoniconcha ambigua	X	X*
Strophitus rugosus	X	X
UNIONINAE		
Ambelma costata	X	X
Cyclonaias tuberculata	X	X
Elliptio complanatus	X	X*
E. crassidens	X	O
E. dilatatus	X	X
Fusconaias ebenus	X	O
F. flava	X	X
Megalonaias gigantea	X	X
Plethobasus cyphus	X	X
Pleurobema cordatum	X	X
Quadrula metanevra	X	X
Q. nodulata	X	O
Q. pustulosa	X	X
Q. quadrula	X	X
Tritogonia verrucosa	X	X
LAMPSILINAE		
Actinonaias carinata	X	X
A. ellipsiformis	X	X
Carunculina parva	X	X
Dynomia triquetra	X	O
Lampsilis anodontoides	X	X
L. orbiculata	X	O
L. siliquoidea	X	X
L. ventricosa	X	X
Leptodea fragilis	X	X
L. laevissima	X	X
L. leptodon	O*	O
Ligumia recta latissima	X	X
Obliquaria reflexa	X	X
Obovaria olivaria	X	X
Plagiola lineolata	X	X ^{††}
Proptera alata	X	X
Truncilla donaciformis	X	O
T. truncata	X	X
Villosa (Micromya) iris	X	X*

X : species present

O : species absent

** : species taken on Iowa side of Mississippi River, presence in Wisconsin presumed.

* : collection of Harold Mathiak.

† : collection of Don Samuelson.

†† : Collection of Milwaukee Public Museum, muskrat specimen.